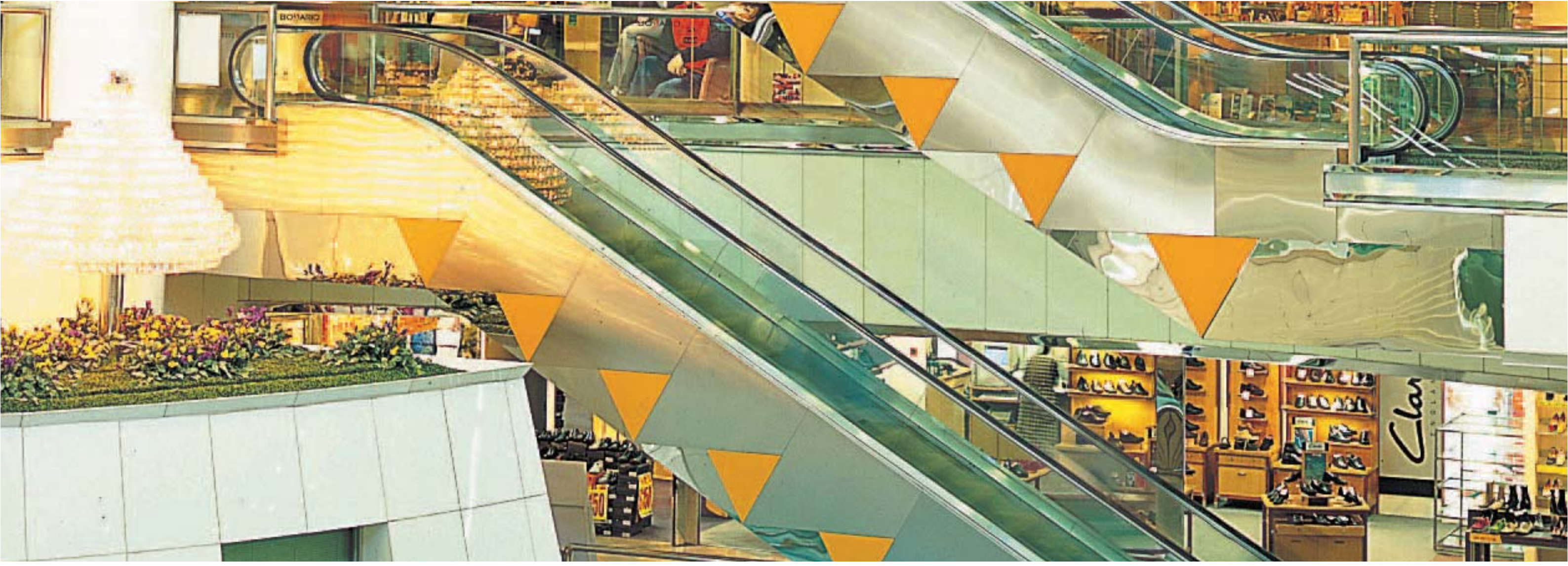


SIGMA Escalator & Moving Walk

SIGMA

The Essence of World Technology...

SIGMA

Escalator touches the hearts of people all around the world

Sigma Commercial Escalators are well suited for today's urban structures. New technological advancements have been applied to make escalator the world-best in design and safety. New technology and aero-dynamic design make Sigma escalators appealing while improved strength and safety features offer security to users.
Sigma escalators will continue to meet customer demands with higher goals than expected.
With certificates to meet various standards around the world, we offer the best quality and safety with Sigma escalators.

Lotus Shopping Center
Thailand

Tsuenwan Plaza
Hong Kong

Yangon Trade Center
Myanmar

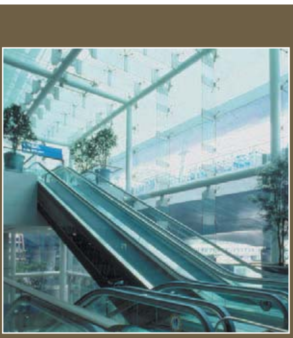
Yuzana Plaza
Myanmar

Diamond Plaza
Vietnam

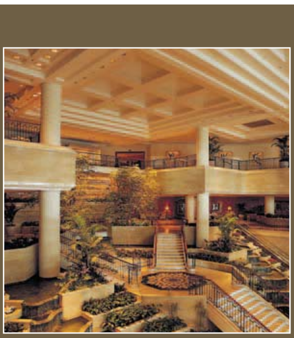
Pearl Continental Hotel
Pakistan

Metro Shopping Mall
Bangladesh

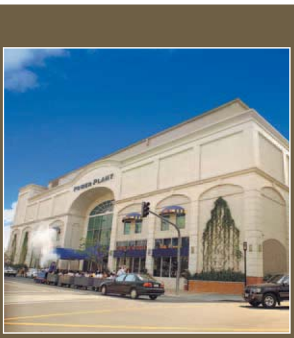
UTC Borak
Bangladesh



Incheon International Airport
Korea



Grand Hyatt Hotel
Indonesia



Rockwell Center
Philippines

Dubai Business Center
U.A.E

Al-Khaleej Shopping Center
U.A.E

Homoud Tower
Kuwait

Central Plaza
Kuwait

Zara Center
Amman

Centro Sambil
Venezuela

CTRO.C. Ga;eroas EL Paraiso
Venezuela

Baiyoke Sky Hotel
Thailand

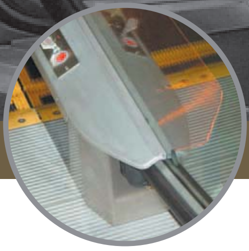
Better World with Sigma Escalators...

TECHNOLOGY

Artistic design, best safety and best ride.
New concept of engineering resulting safe and low noise SIGMA Escalator.
A different escalator...

For SCE Model

For SEE Model



Design

Artistic design
with smooth
and natural lines

Robust

Strength with
comfort and
low noise

Safety

Elimination of the
source of safety hazards

Low Noise Minimal Vibration

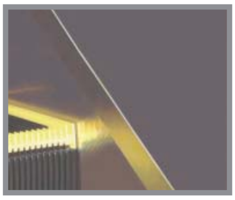
SIGMA owns the largest and perfect noise testing room, which keeps all the passengers apart from noise annoyance and bring them closer to more safe & comfort

Better design for a better world...

DESIGN

SIGMA escalator’s unique design and various design options make assimilation with building aesthetics possible

Glass panel



Clear

Floor

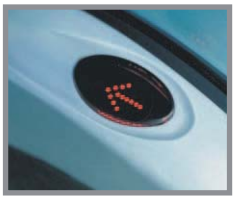
※Above colors may differ from the actual color due to printing

Aluminium

Aluminium(Option)

Stainless steel(Option)

Direction indicator (For SCE only)



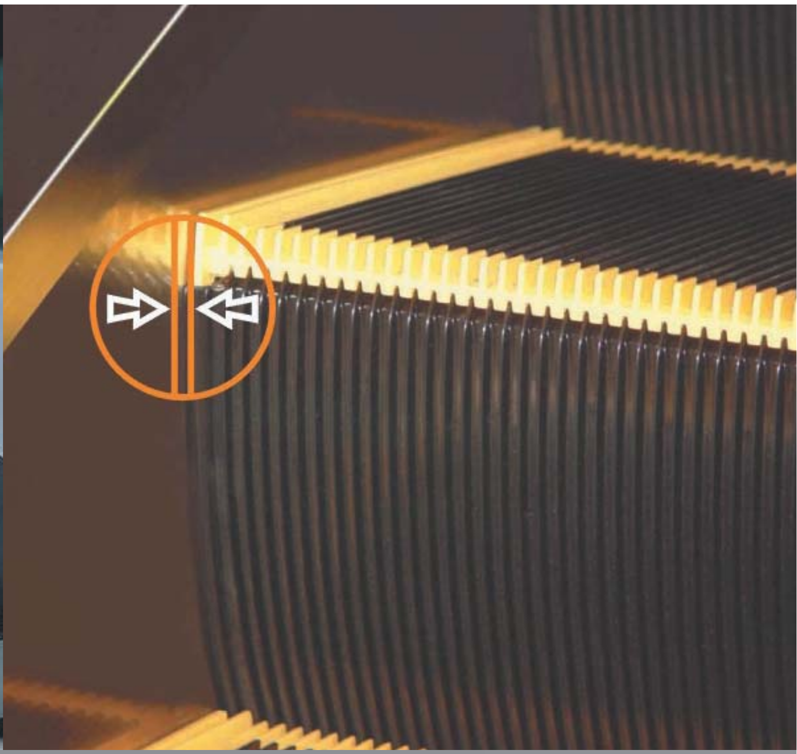
Various colors for handrails

· Ebony(Black)	ES-01
· Scarlet	ES-10
· Sapphire	ES-27(Option)
· Crimson	ES-20(Option)
· Mid Grey	ES-12(Option)
· Emerald	ES-29(Option)

※Actual colors may differ

Safety is the foundation of design...

SAFETY INNOVATION



Entry Box

Handrail inlet engineered through mock emergency tests.

If engaging force is over 5kg, the deflect cover will be separated safety.

Gap between step and skirt guard

Surpass EN Code requirements. (The gap ⩽ 3mm)

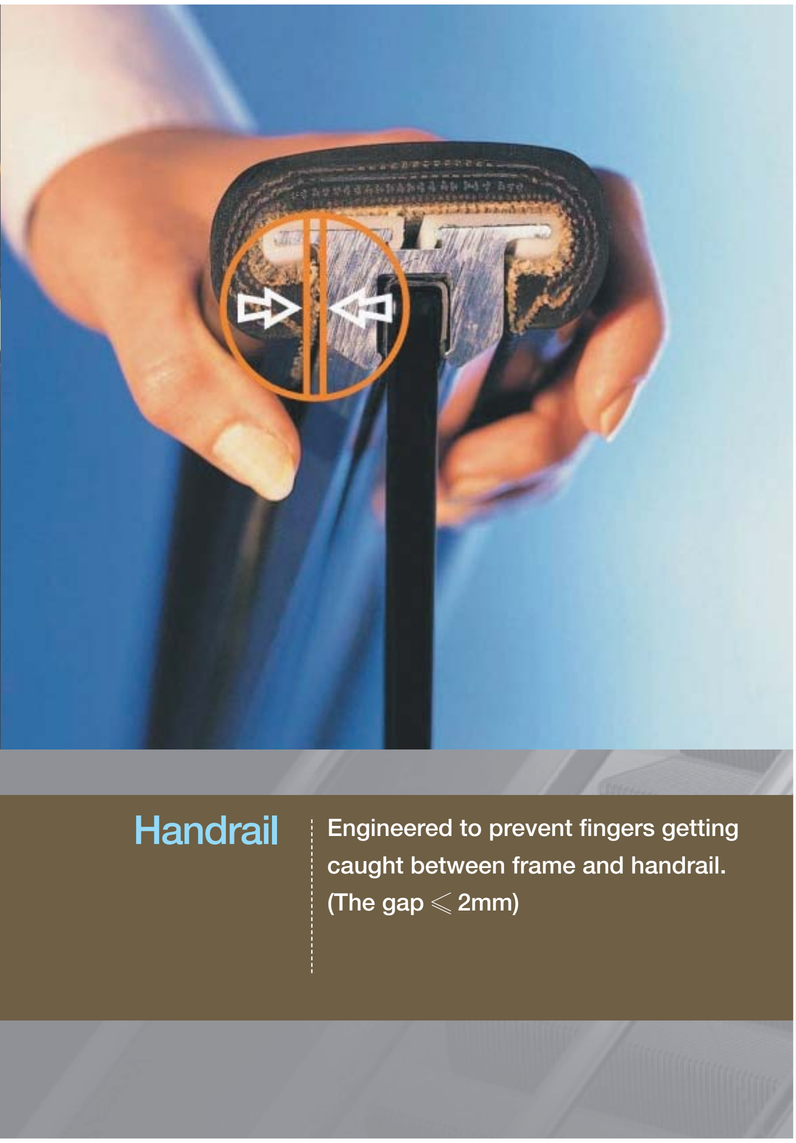
❶ Comb Plate Switch

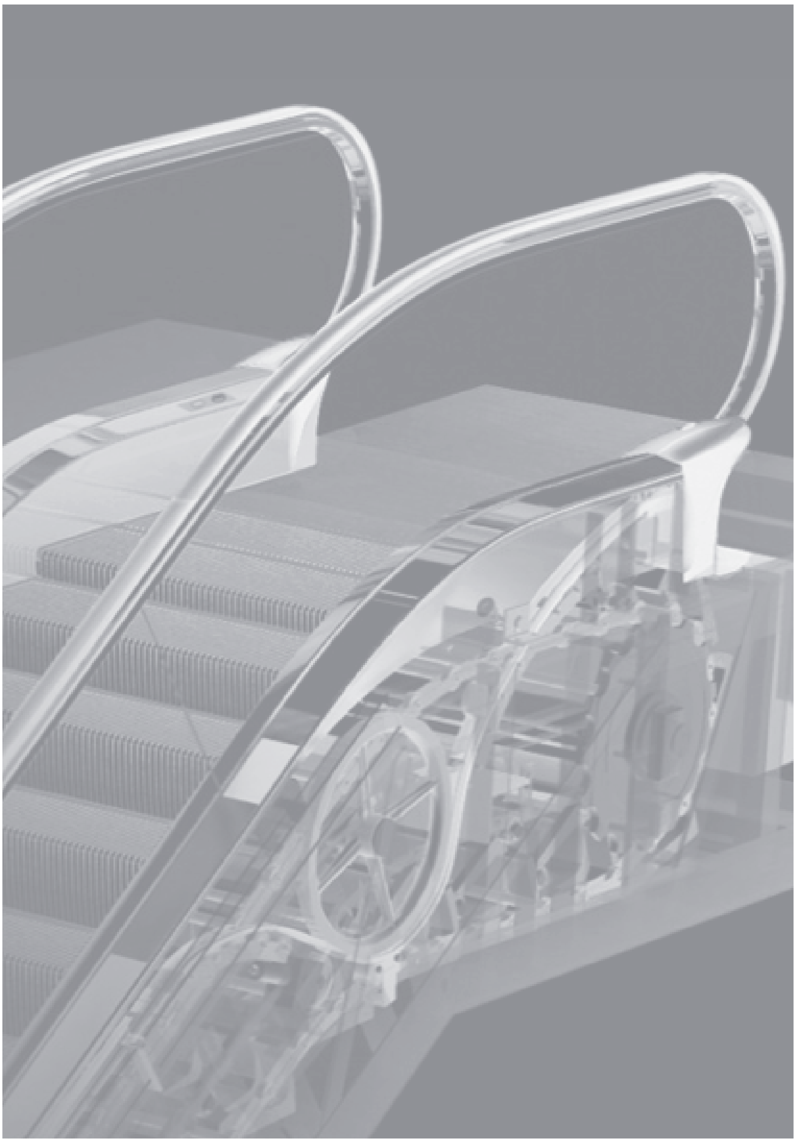
❷ Safety Guard at upper and lower machine rooms

❸ Step Safety Switch

❹ Entry Switch

❺ Skirt Guard Safety Device





Handrail

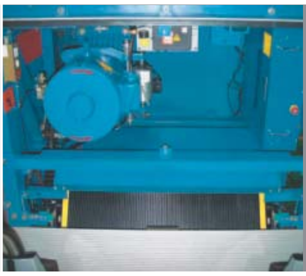
Engineered to prevent fingers getting caught between frame and handrail. (The gap ⩽ 2mm)

❻ Driving Chain Safety Device

❼ Step Roller Safety Device

❽ Step Chain Safety Device

❾ Emergency Stop Device



❿ Expanded Maintenance Area

STRUCTURE & SAFETY DEVICE

- Self-diagnostic functions with remote communication
- Engineered through field know-how
- Advanced safety system with robust design

Skirt Guard Safety Device

Stop escalator if objects are caught between step and skirt.

Comb Plate Safety Switch

Stop escalator if objects are caught between comb plate and step treads.

Entry Switch

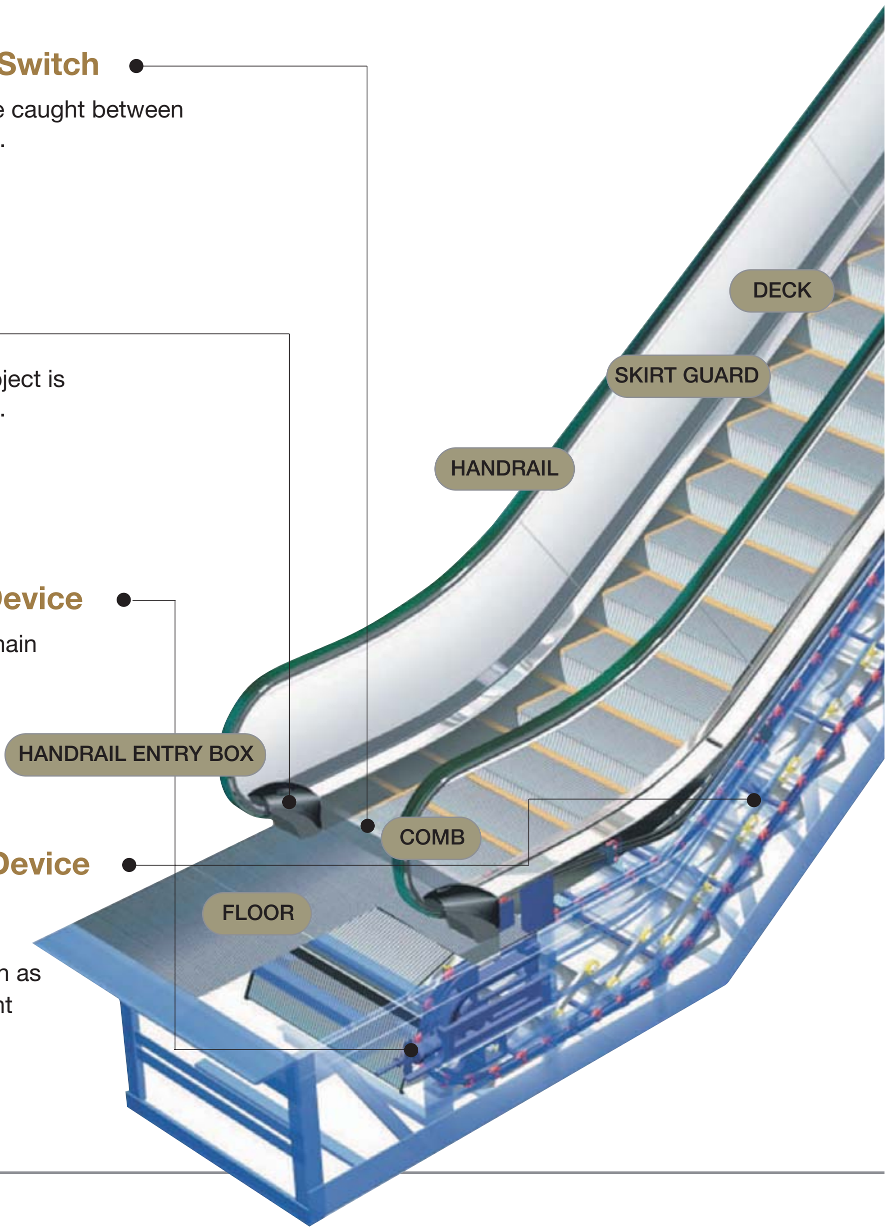
Stop escalator if hand or object is pulled into the handrail inlet.

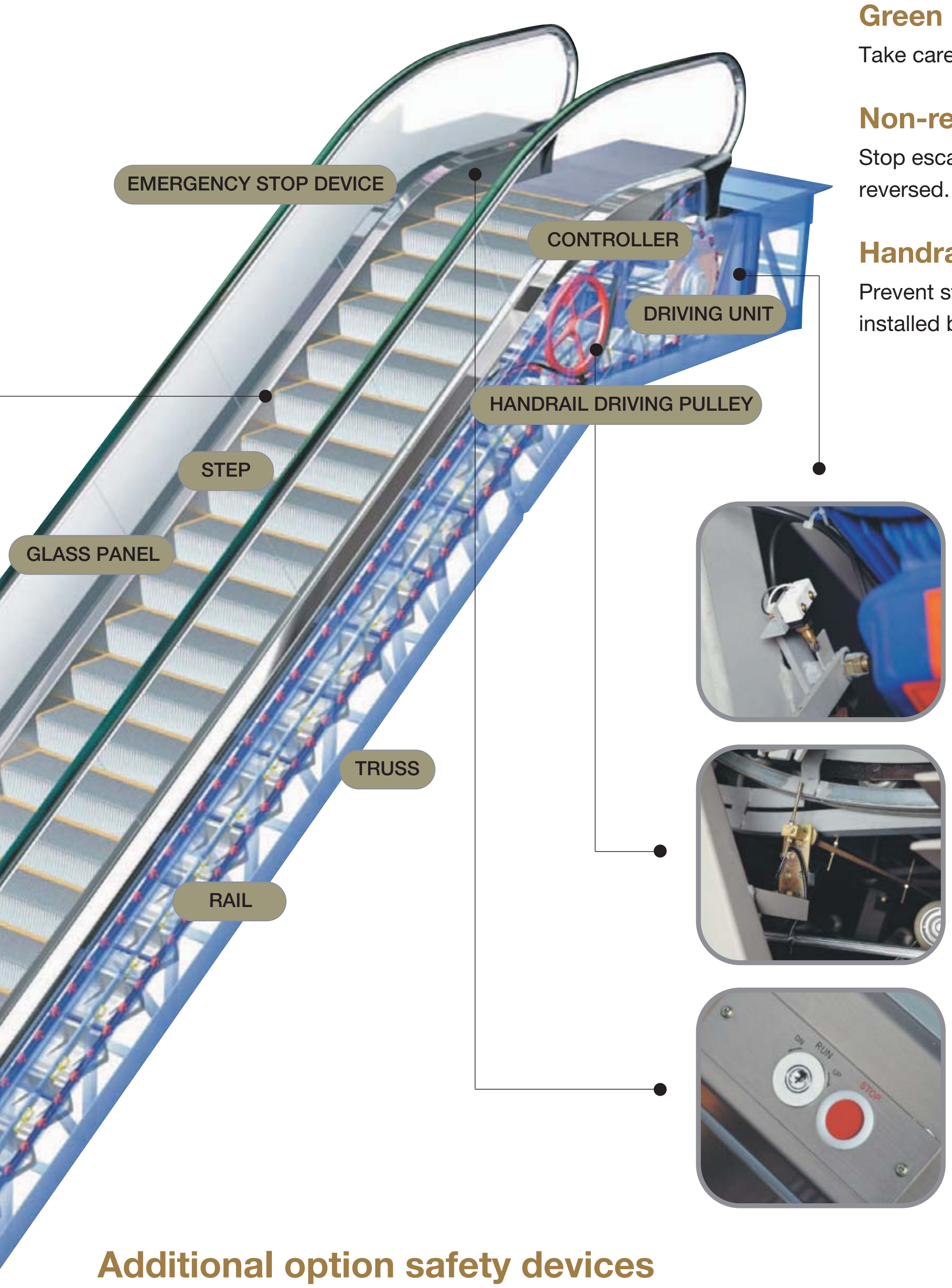
Step chain Safety Device

Stop escalator if the step chain breaks or becomes loose.

Step Roller Safety Device

Stop escalator if steps are operating in abnormal manner due to reasons such as foreign matters being caught between steps.





Green Light

Take care of the passengers for riding safety.

Non-reversing Safety Device

Stop escalator if its direction of operating is reversed.

Handrail Static Device

Prevent static electricity with handrail rollers installed blocking static electricity

Driving Chain Safety Device

Stop escalator if the driving chain breaks or excessively loosen.

Step Safety Switch

Stop escalator if steps are operating in abnormal manner due to fractured step.

Emergency Stop Device

In an emergency, stop the escalator immediately if pressed.

Additional option safety devices

Overspeed Detector

Stop escalator if operating above normal speed

Auxiliary Brake

Stop escalator if the driving chain breaks or over-speeds

Brake Lining Wear Safety Device

Stop escalator if the lining of main brake is worn abnormally

Handrail Speed Detector

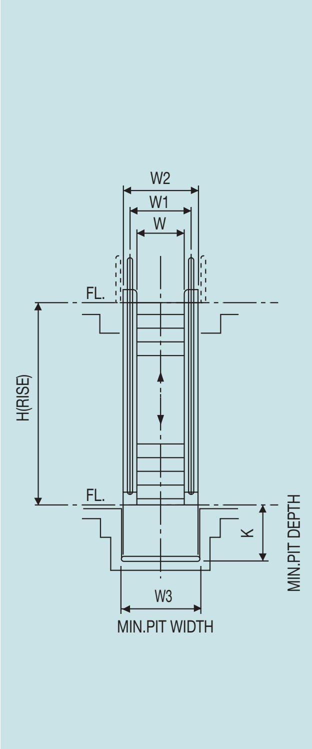
Stop escalator if handrail speed is below normal due to handrail breakge or elongations

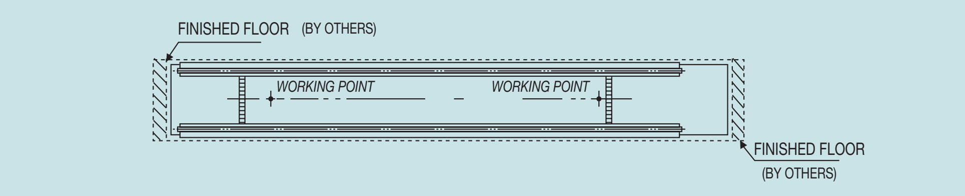
Handrail Broken Safety Device

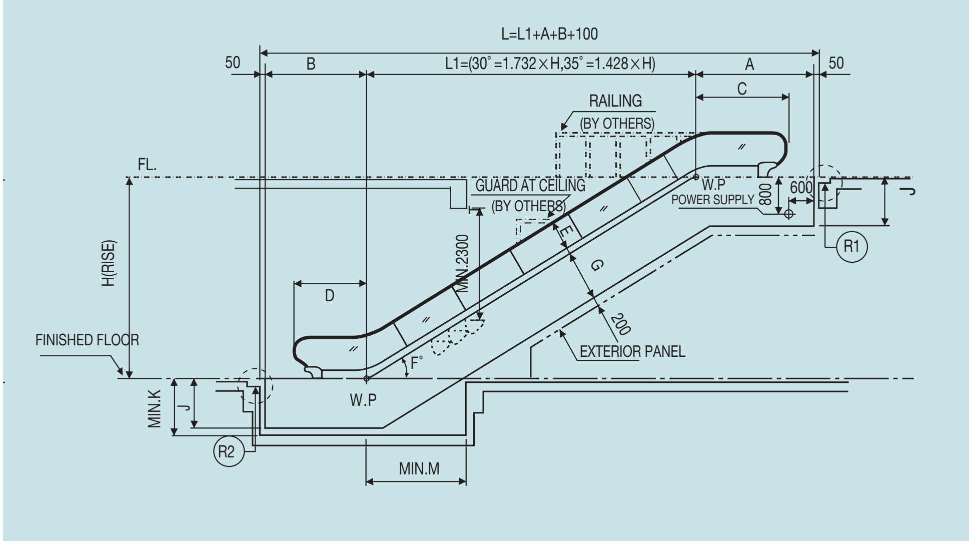
Stop escalator if handrail breaks or stops

SPECIFICATION

SCE Model (Rise: 2050mm ~ 6000mm)

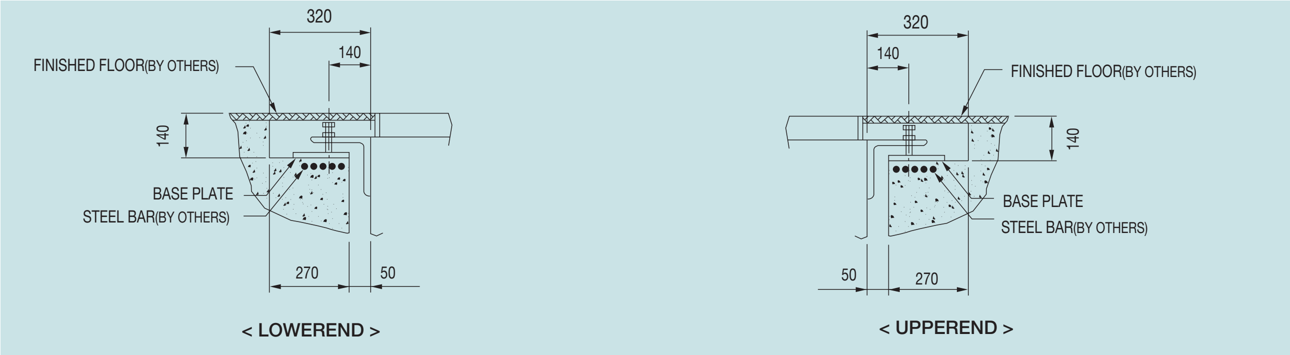






Concrete Support Structure

(units : mm)



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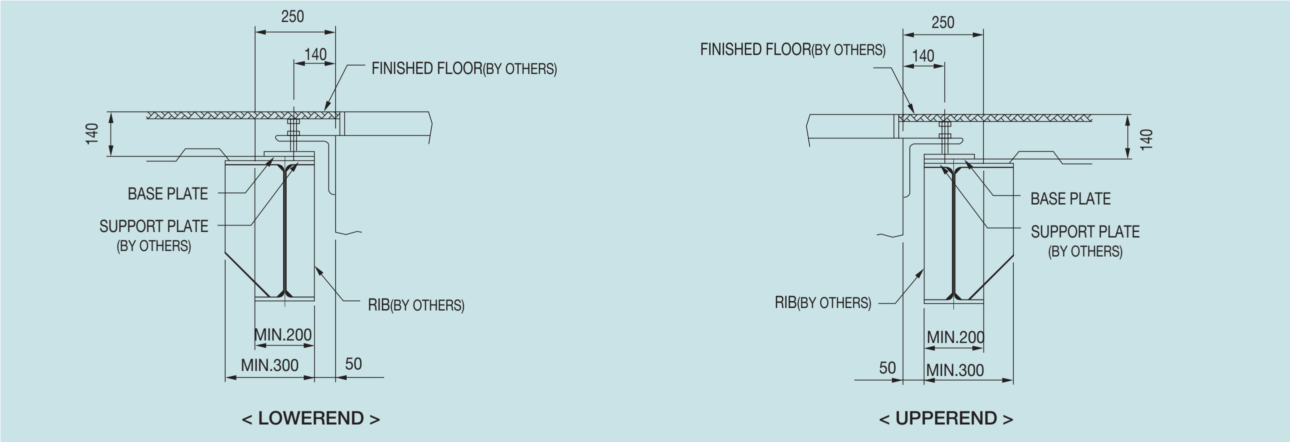
Steel Beam Support Structure



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Technical Data for SCE Model (Rise 2050mm~6000mm)

Specification

Part	Description
Control type	Micom Controller
Driving Machine	Worm Helical Geared Type
Step Width	800 &1200 Type
Step	Aluminium with gray color paint
Floor Cover	Aluminium (Standard) / Stainless Steel (Option)
Comb Plate	Aluminium (Standard) / Stainless Steel (Option)
Comb	Aluminium (Standard) / Plastic (Option)
Glass Panel Color	Clear / Green(Option) / Bronze(Option)

Dimensions

(units : mm)

No. of Flat Step	Angle of Inclination	Rise(H)	A		B	C	D	E	F	G	J	K	M
			800	1200									
1.5	30˚	2050~6000	2215	2215	1945	1665	1395	** 730 (800)	30	950	1020	1110	2300
	35˚		2290	2290	2020	1740	1470		35				2000
2	30˚		2915	2415	2145	1865	1595		30				2300
	35˚		2990	2490	2220	1940	1670		35				2000
3	30˚	2050~6500	3315	2815	2545	2265	1995		30				2300

(units : mm)

No. of Flat Step	Angle of Inclination	Step width		W		W1		W2		W3	
		800	1200	800	1200	800	1200	800	1200	800	1200
1.5 / 2 / 3	30˚/35˚	604	1004	609	1009	820	1220	1150	1550	1250	1650

[Note]
* In case of EN115 compliance, E is 800mm.
- When L is over (30 * : 15500, 35 * : 13800)mm, an immediate support is required.(In case of EN115 compliance, L is 15,553mm)
- For no intermediate support and when L is over (30 * : 15500, 35 * : 13800)mm, consult SIGMA for further details.
- Given dimensions may change without advance notice.

Reaction

(units : kg)

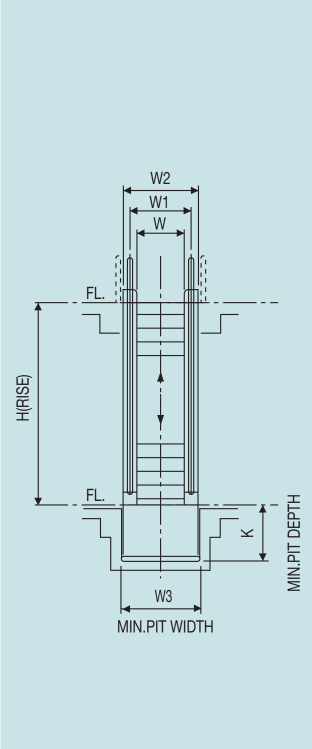
No. of Flat Step	Angle of Inclination	800 Type		1200 Type	
		R1	R2	R1	R2
1.5	30˚	0.64H+2100	0.64H+1500	0.76H+2800	0.76H+2400
	35˚	0.52H+2600	0.52H+2100	0.67H+3000	0.67H+2300
2 / 3	30˚	0.64H+2500	0.64H+1900	0.80H+3100	0.80H+2500
	35˚	0.52H+2800	0.52H+2300	0.67H+3400	0.67H+2800

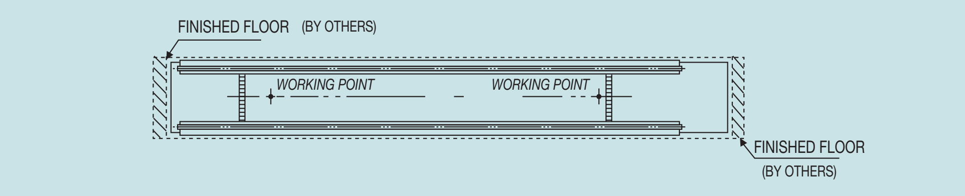
Electric Data

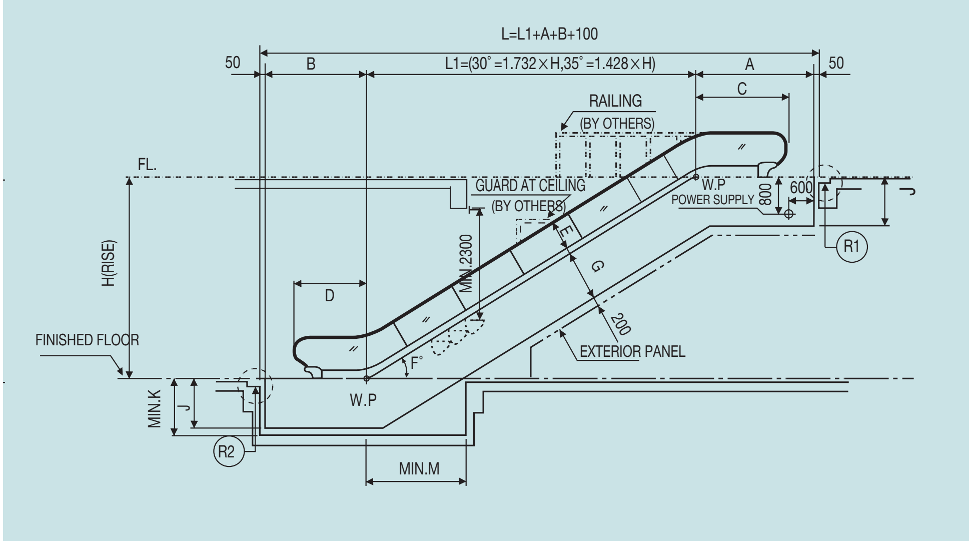
No. of Flat Step	Angle of Inclination	Type	Rise H(mm)		
Standard	30˚	800	≤ 5.8m	≤ 6.5m	-
		1200	≤ 4.5m	≤ 6.5m	-
	35˚	800	≤ 5.8m	≤ 6.0m	-
		1200	≤ 4.5m	≤ 6.0m	-
EN 115	30˚	800	≤ 4.5m	≤ 6.0m	-
		1200	≤ 3.4m	≤ 4.8m	≤ 6.0m
	35˚	800	≤ 4.5m	≤ 6.0m	-
		1200	≤ 3.4m	≤ 4.9m	≤ 6.0m
Motor(kW)			5.5	7.5	9.5
Lead-in wires(mm²)		200V / 400V	5.5 / 3.5	14 / 5.5	14 / 5.5
MCCB Capacity of Building(A)		200V / 400V	40 / 20	50 / 30	60 / 40

SPECIFICATION

SEE Model (Rise: 2050mm ~ 6000mm)

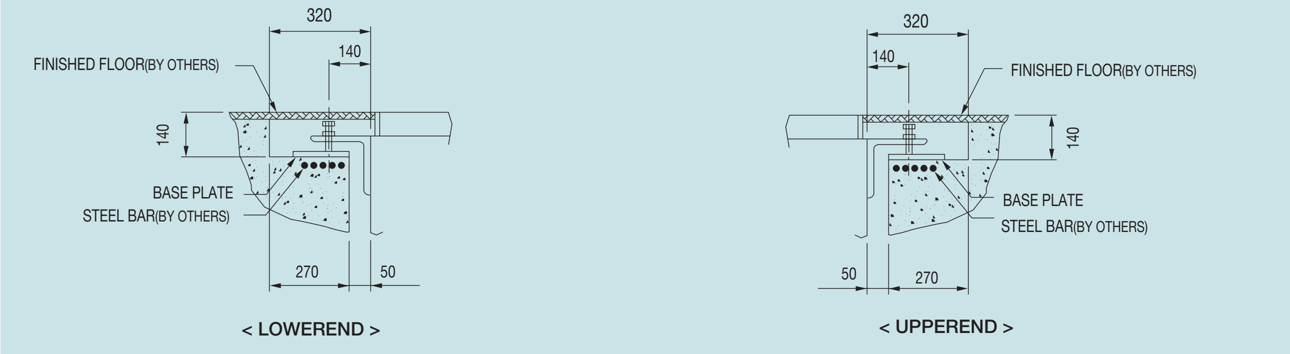






Concrete Support Structure

(units : mm)



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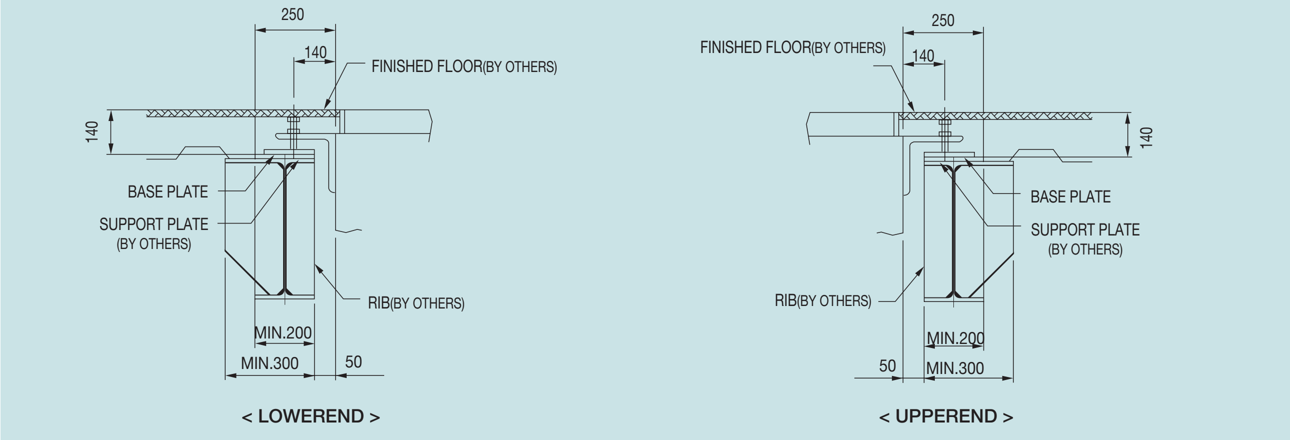
Steel Beam Support Structure



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Technical Data for SEE Model (Rise 2050mm~6000mm)

Specification

Part	Description
Control type	Relay Controller
Driving Machine	Worm Geared Type
Step Width	800 & 1000 &1200 Type
Step	Stainless steel (Standard) / Aluminium (Option)
Floor Cover	Stainless steel (Standard) / Aluminium (Option)
Comb Plate	Stainless steel (Standard) / Aluminium (Option)
Comb	Plastic (Standard) / Aluminium (Option)
Glass Panel Color	Clear

Dimensions

(units : mm)

No. of Flat Step	Angle of Inclination	Rise(H)	A			B	C	D	E	F	G	J	K	M
			800	1000	1200									
2	30°	2050~6000	2915	2915	2415	2145	1865	1595	800	30	950	1020	1100	2300
	35°		2990	2990	2490	2220	1940	1670		35				2000

(units : mm)

No. of Flat Step	Angle of Inclination	Step width			W			W1			W2			W3		
		800	1000	1200	800	1000	1200	800	1000	1200	800	1000	1200	800	1000	1200
2	30°/35°	604	804	1004	609	809	1009	820	1020	1220	1150	1350	1550	1250	1450	1650

[Note]

- When L is over (30 * : 15500, 35 * : 13800)mm, an immediate support is required.(In case of EN115 compliance, L is 15,553mm)
- For no intermediate support and when L is over (30 * : 15500, 35 * : 13800)mm, consult SIGMA for further details.
- Given dimensions may change without advance notice.

Reaction

(units : kg)

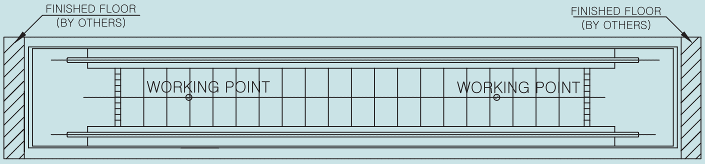
No. of Flat Step	Angle of Inclination	800 Type		1200 Type	
		R1	R2	R1	R2
2	30°	0.64H+2500	0.64H+1900	0.80H+3100	0.80H+2500
	35°	0.52H+2800	0.52H+2300	0.67H+3400	0.67H+2700

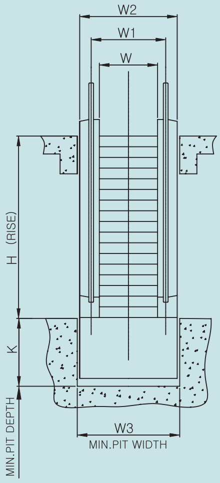
Electric Data

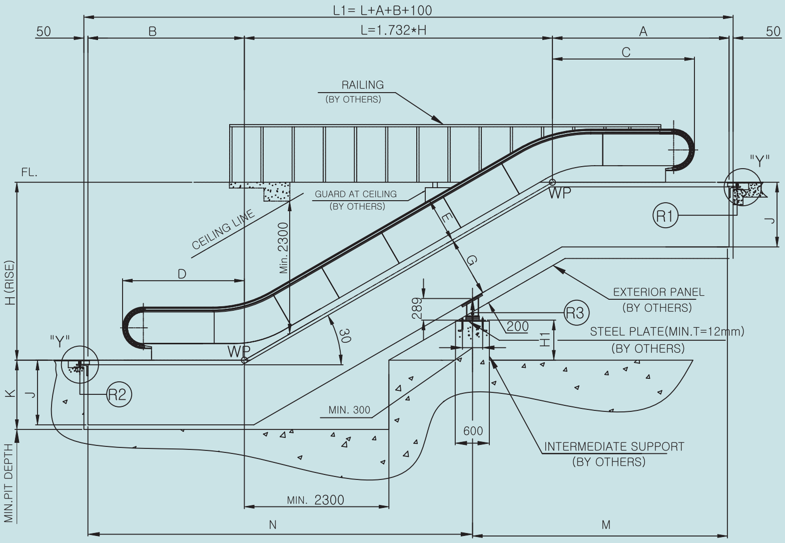
No. of Flat Step	Angle of Inclination	Type	Rise H(m)		
2	30°	800	≤6.0m	-	-
		1000 & 1200	≤3.7m	≤5.55m	≤6.0m
	35°	800	≤6.0m	-	-
		1000 & 1200	≤3.7m	≤5.55m	≤6.0m
Motor (kw)			5.5	8	11
Power Source Lead In Wire (mm²)			4	5.5	8
MCCB Capacity Of Building (A)			25	30	50

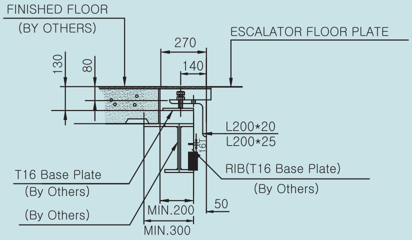
SPECIFICATION & CONSTRUCTION

SCH & SEH Model (Rise: 6050mm ~ 8400mm)

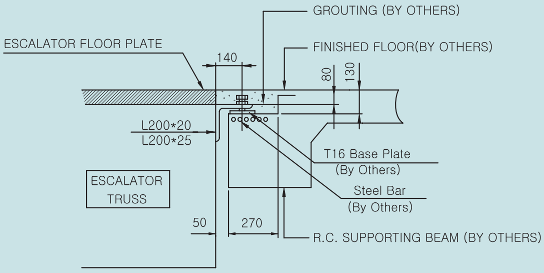








“Y” Detail (Steel structure)



“Y” Detail (Concrete structure)

Technical Data for SCH & SEH Model (Rise 6050mm~8400mm)

Specification

Part	Description	
	SCH Model	SEH Model
Control type	Micom Controller	Relay Controller
Driving Machine	Worm Geared Type	Worm Geared type
Step Width	800 &1200 Type	800 &1200 Type
Step	Aluminium (Standard) / Stainless Steel (Option)	Stainless steel (Standard) / Aluminium (Option)
Floor Cover	Aluminium (Standard) / Stainless Steel (Option)	Stainless steel (Standard) / Aluminium (Option)
Comb Plate	Aluminium (Standard) / Stainless Steel (Option)	Stainless steel (Standard) / Aluminium (Option)
Comb	Aluminium (Standard) / Plastic (Option)	Plastic (Standard) / Aluminium (Option)
Glass Panel Color	Clear	Clear

Dimensions

(units : mm)

No. of Flat Step	Angle of Inclination	Rise (H)	Step Width	A	B	C	D	E	G	J	K
3	30˚	6050~8400	800	3440	2556	2390	2006	800	950	1100	1180
			1000	3440							
			1200	2940							

(units : mm)

No. of Flat Step	Angle of Inclination	Rise (H)	Step Width	W	W1	W2	W3
3	30˚	6050~8400	800	604	820	1150	1250
			1000	804	1020	1350	1450
			1200	1004	1220	1550	1650

Reaction

(units : kg)

R1	R2	R1	R2
6060 ≤ H ≤ 6500	0.47M+1500	0.47N+800	0.47(M+N)+1500
6550 ≤ H ≤ 8400	0.47M+2100	0.47N+1100	0.47(M+N)+1500

- Maximum N, M dimension should be less than 13,000mm.

Electric Data

SCH Model

No. of Flat Step	Angle of Inclination	Type	Rise H(mm)			
3	30˚	800	6050 ≤ H ≤ 6450	6500 ≤ H ≤ 8400	-	-
		1000 & 1200	-	-	6050 ≤ H ≤ 7800	7850 ≤ H ≤ 8400
Motor (kw)			5.5	8	11	13
Power Source Lead In Wire (mm^2)			4	5.5	8	14
MCCB Capacity Of Building (A)			25	30	50	50

SEH Model

No. of Flat Step	Angle of Inclination	Type	Rise H(mm)			
3	30˚	800	6050 ≤ H ≤ 6450	6500 ≤ H ≤ 8400	-	-
		1000 & 1200	-	-	6050 ≤ H ≤ 7800	7850 ≤ H ≤ 8400
Motor (kw)			5.5	8	11	13
Power Source Lead In Wire (mm^2)			4	5.5	8	14
MCCB Capacity Of Building (A)			25	30	50	50

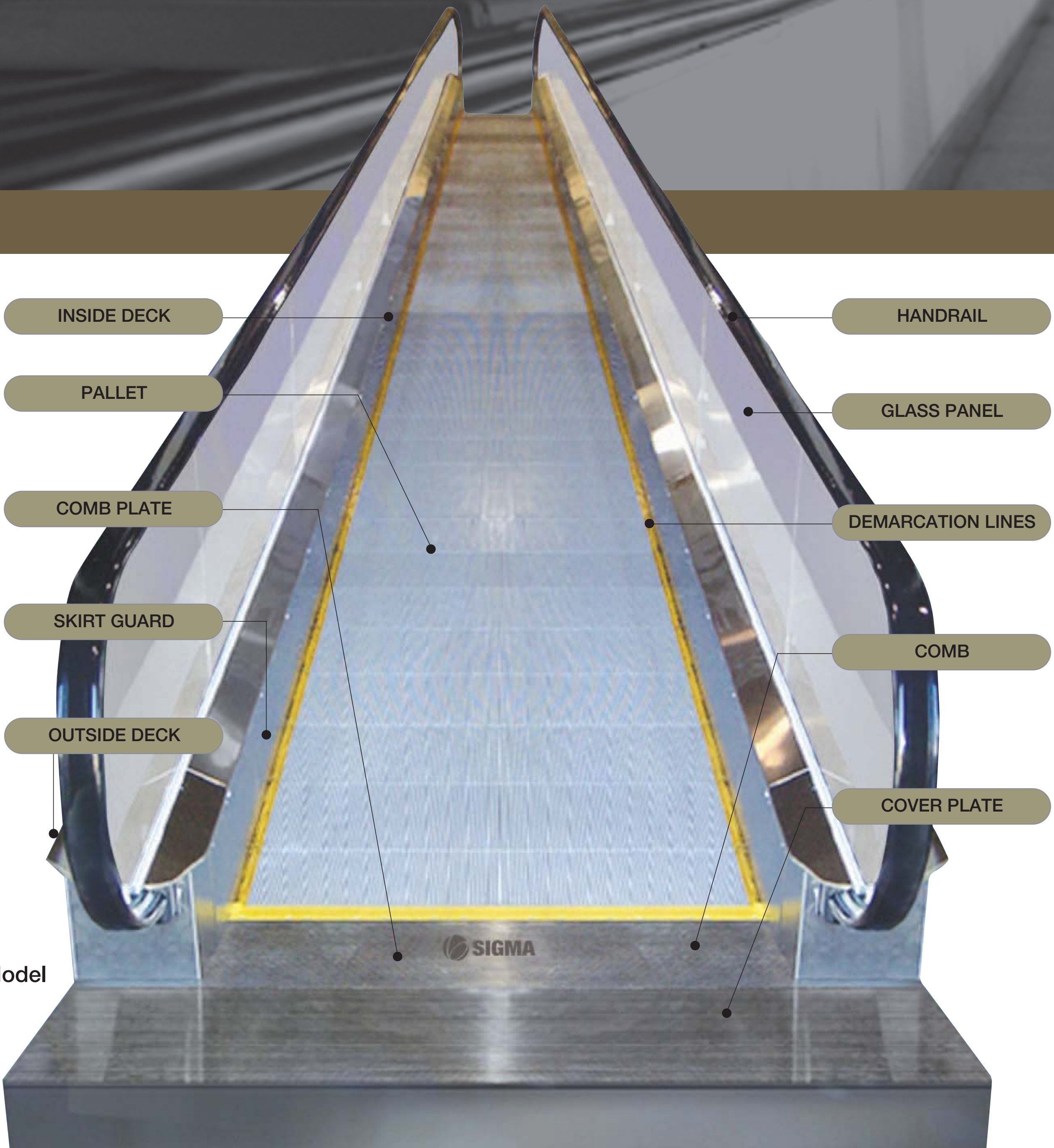
SIGMA Moving Walk keeps you on the move...

MOVING WALK

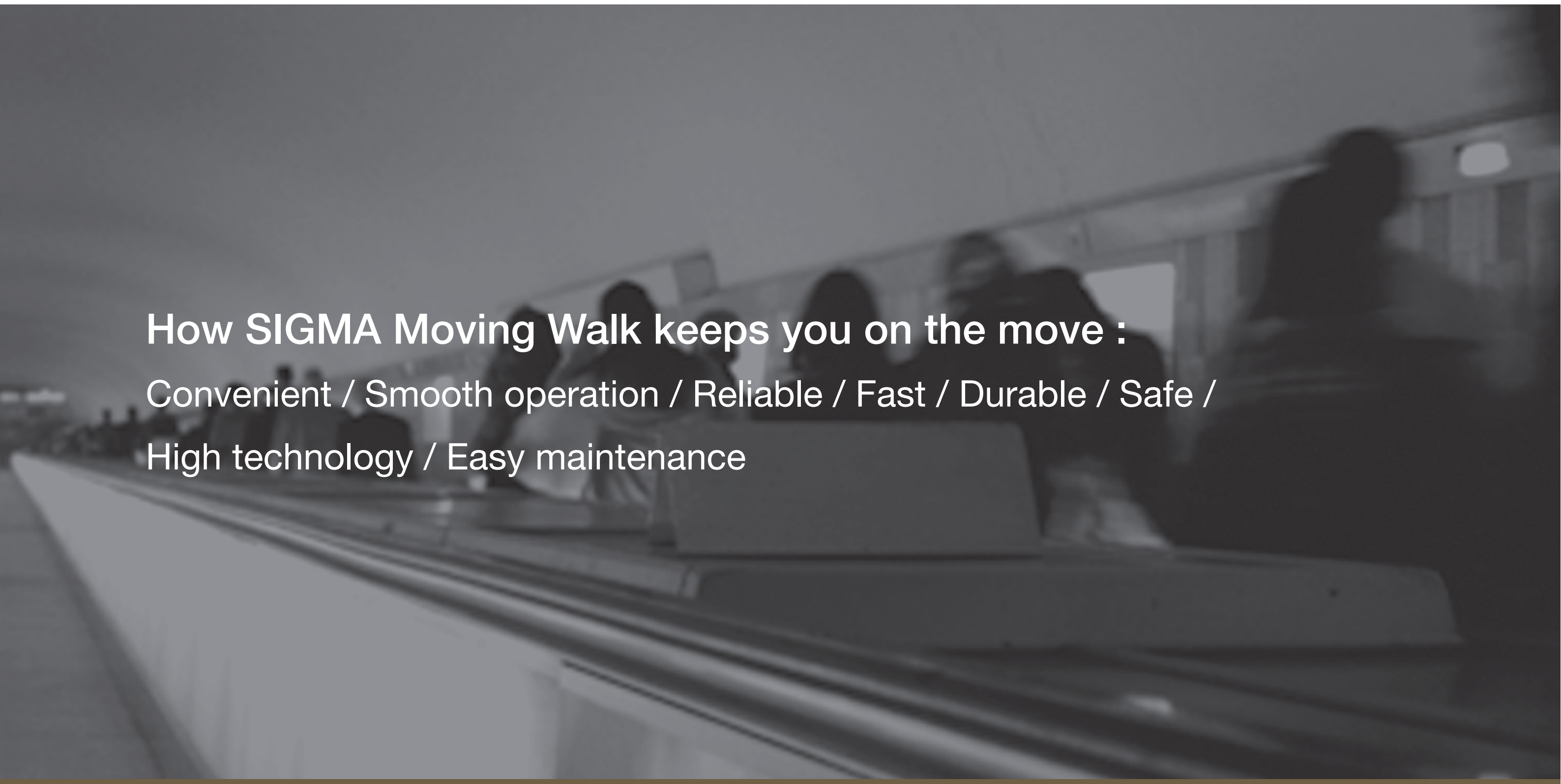
Modern “Moving Walk”-Creating a pleasant building culture in many countries around the world.

Where SIGMA Moving Walk keeps you on the move :

Airport / Shopping Center / Subway Station / Railway Station / Hospital / Exhibition Center / Museum / Amusement Park etc.,



- LCM Model



How SIGMA Moving Walk keeps you on the move :

Convenient / Smooth operation / Reliable / Fast / Durable / Safe /
High technology / Easy maintenance

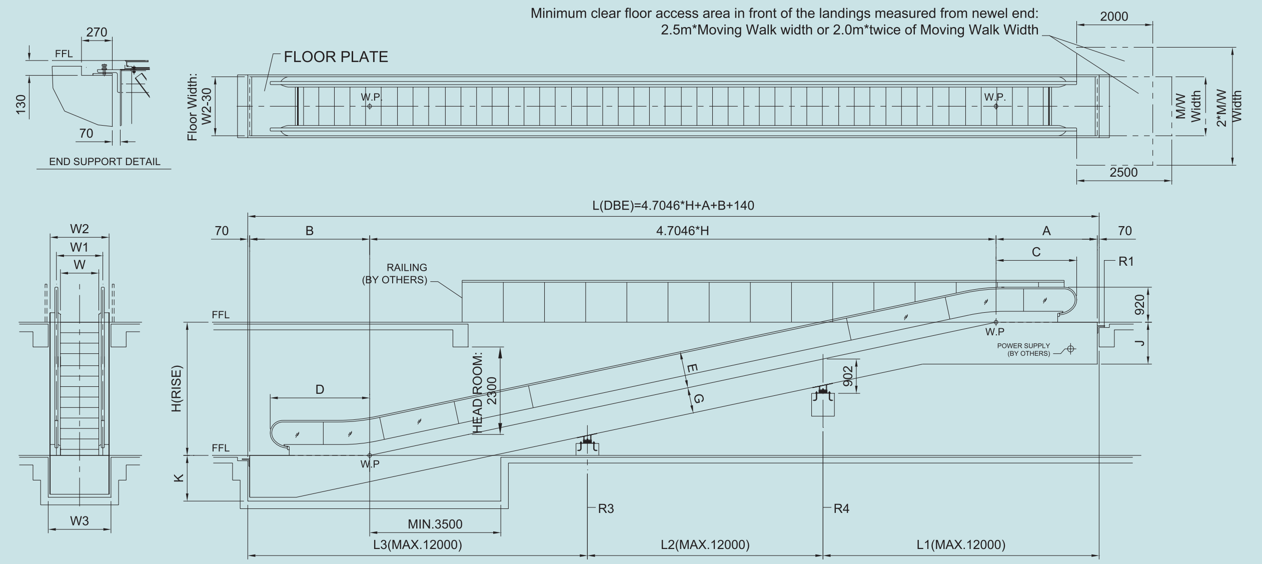
Safety Devices

● Standard ☐ Option

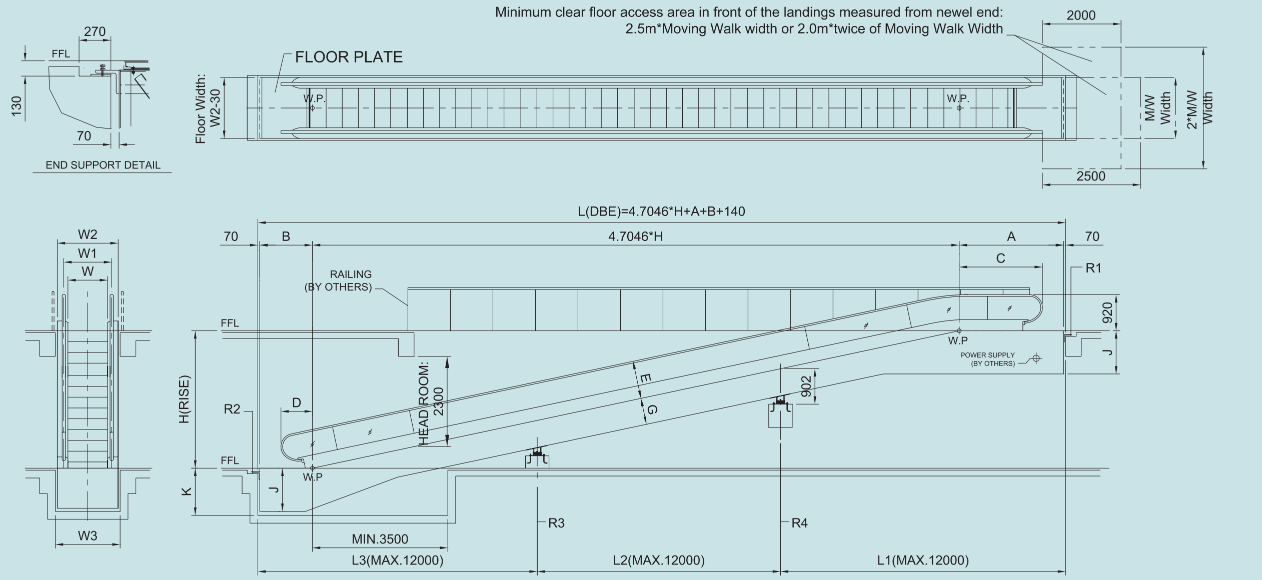
Safety Devices		Description	LCM	SCT	SET
1	Emergency Stop Button	If pressed in an emergency, stops the moving walk immediately.	●	●	●
2	Comb Plate Safety Switch	Stops if objects are caught between comb plate and pallet treads.	●	●	●
3	Pallet Chain Safety Device	Stops if the pallet chain breaks or becomes loose.	●	●	●
4	Handrail Inlet Safety Device	Stops if hand or object is pulled into the handrail inlet.	●	●	●
5	Driving Chain Safety Device	Stops if the driving chain breaks or excessively looses.	●	●	●
6	Pallet and Pallet Roller Safety Device	Stops if pallets are operating in abnormal manner due to reasons such as foreign matters being caught between pallet.	●	●	●
7	Pallet Demarcation	Yellow two demarcation lines provided below the flat pallet at both landings.	●	×	×
8	Maintenance Switch	Cuts off operating circuits when maintenance inspection or repairis performed.	●	●	●
9	Foot Light	Lamps are provides at the both sides of comb plate to help assure safe and travelling.	☐	×	×
10	Green Light	Green light lamps are provided below the flat pallet at both landings.	☐	●	●
11	Non Reversing Safety Device	Stops if its direction of thravel is reversed.	☐	●	●
12	Skirt Guard Safety Device	Stops if objects are caught between allet skirts.	☐	●	●
13	Handrail Speed monitoring Device	Stops if handail speed is below normal due to handrail breakage or elongation.	☐	☐	×
14	Over Speed Detector	Stops if operating above normal speed.	☐	●	×
15	Handrail Static Electricity Preventer	Prevents static electricity with handrail running loop installed blocking static electricty.	☐	●	●

SPECIFICATION & CONSTRUCTION

LCM-GS Model (Rise: 2600mm ~ 7000mm)



LCM-KS Model (Rise: 2600mm ~ 7000mm)



Technical Data for LCM Model (Rise 2600mm~7000mm)

Specification

Part		Material
Balustrade	Handrail	Composite Rubber
	Handrail Frame	Aluminium
	Panel	Tempered Glass
Floor	Comb	Aluminium
	Comb Plate	Stainless Etching(Black Grooves)
	Cover Plate	Stainless Etching(Black Grooves)
Pallets	Pallet	Aluminium with gray paint
	Demarcation Line	Yellow Synthetic Resin(Two sides)

Type	1200 Type	1000 Type
Effective Width	1200mm	1000mm
Pallet Width	1004mm	804mm
Speed	30m/min	
Gradient	Slope type : 12˚	
Motor	AC Three-phase induction motor	
Operation	Reversible key switch	

Dimensions

(units : mm)

No. of Flat Step	Angle of Inclination	Rise(H)	Type	A	B	C	D	E	G	J	K
LCM-10GS	12˚	2600~7000	1000	2660	3155	2120	2615	955	675	1100	1200
LCM-12GS			1200								
LCM-10KS	12˚	2600~7000	1000	2660	1340	2120	800	955	675	1100	1200
LCM-12KS			1200								

(units : mm)

Model	Rise(H)	W		W1		W2		W3	
		800	1200	800	1200	800	1200	800	1200
LCM-GS	2600~7000	809	1009	1010	1210	1420	1620	1520	1720
LCM-KS									

Reaction

(units : kg)

No. of Support	R2	R1	R2	R2
3	(L1+L2)×T+P	L3×T+Q	(L1+L2+L3)×1.3×T	-
4	L1×T+P	L3×T+Q	(L2+L3)×1.3×T	(L1+L2)×1.3×T

Service Factor for Support loads

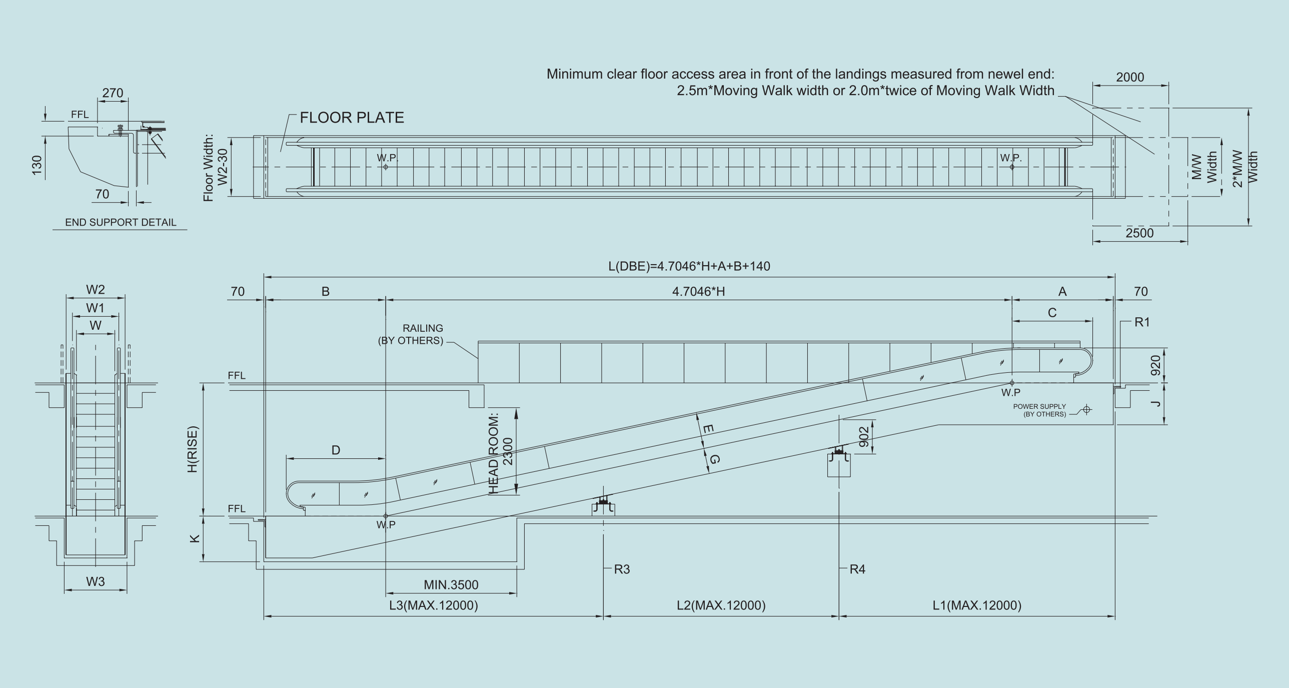
Type	T	P	Q
1000	0.428	1045.4	485
1200	0.459	1122.5	510

Motor Capacity

LCM					
LCM	50Hz	H≤3489mm	H≤4986mm	H≤5776mm	H≤7024mm
	60Hz	H≤3489mm	H≤4986mm	-	H≤7024mm
Motor Capacity(kW)		5.5	7.5	9.5	11

SPECIFICATION & CONSTRUCTION

SCT & SET Model (Rise: 2500mm ~ 6000mm)



Technical Data for SCT & SET Model (Rise 2500mm~6000mm)

Specification

Part		Description
Balustrade	Handrail	Synthetic Rubber
	Handrail Frame	Aluminium
	Panel	Glass
Floor	Comb	Aluminium / Gray
	Comb Plate	Aluminium / Gray
	Cover Plate	Stainless Steel(Standard) / Aluminium(Option)
Pallets	Pallet	Stainless Steel(Standard) / Aluminium(Option)
	Demarcation Line	Without

Type	1200 Type
Effective Width	1200mm
Pallet Width	1004mm
Speed	30m/min
Gradient	Slope type : 12˚
Motor	AC Three-phase induction motor
Operation	Reversible key switch

Dimensions

(units : mm)

No. of Flat Step	Angle of Inclination	Rise(H)	Type	A	B	C	D	E	G	J	K
SCT12 /SET12	12˚	2500~6000	1000	2390	2290	1960	1960	843	760	992	1072
			1200	2290							
		6050~7000	1000	2890	2390						
			1200	2790							

No. of Flat Step	Angle of Inclination	Rise(H)	Type	W	W1	W2	W3
SCT12 /SET12	12˚	2500~6000	1000	814	1026	1356	1456
			1200	1014	1226	1556	1656
		6050~7000	1000	814	1026	1356	1456
			1200	1014	1226	1556	1656

Reaction

(units : kg)

No. of Support	R1	R2	R3	R4
3	(L1+L2)×T+P	L3×T+Q	(L1+L2+L3)×1.35×T	-
4	L1×T+P	L3×T+Q	(L2+L3)×1.35×T	(L1+L2)×1.35×T

Service Factor for Support loads

Type	T	P	Q
1200	0.459	1122.5	510

Motor Capacity

SCT12	H≤4000mm	H≤5200mm	H≤6200mm
Motor Capacity(kW)	7.5	9.5	11

SET12	H≤4000mm	H≤6000mm
Motor Capacity(kW)	8	11

Electric Data

Model	Normal Width	Rise H(mm)			
SCT /SET	1000	H ≤ 3500	H ≤ 5400	H ≤ 7000	-
	1200	H ≤ 2850	H ≤ 4400	H ≤ 6250	H ≤ 7000
Motor (kw)		5.5	8	11	13
Power Source Lead In Wire (mm²)		4	5.5	8	14
MCCB Capacity Of Building (A)		25	30	50	50

WORKS BY OTHERS

Building Construction

No.	Works by Others
1	Cutting and patching of any holes needed to install the escalator / moving walk
2	Providing bases and supports for installation
3	Providing clear access to well ways
4	Providing a pit and moisture proofing at the lower end of escalator / moving walk (If there are rooms occupied below this level, the pit must be of fire-resistant construction)
5	Finishing the floor and ceiling around the escalator / moving walk after installation
6	Installation of safety railings around the escalator / moving walk
7	Installation of exterior truss panels or other external decoration
8	Installation of delta guard at all intersections either between escalator / moving walk and ceiling
9	Installation of barriers and safety railings in the space between paired escalator / moving walk
10	Finishing ceiling edges, etc., around wells
11	Installation of safety net in the ceiling space, if required
12	Providing clear access for equipment and all necessary building renovation work for existing buildings where escalator / moving walk are to be installed
13	Providing proper finish works for existing building installations
14	Proper safety protection, within 500mm from the handrail out side and 2,100mm from flooring, against any columns or open ceilings, etc.
15	Any connection works for interfaces with building's fire emergency protocols

Electrical Wiring

No.	Works by Others
16	Installation of power line wiring to the upper machine room
17	Installation of maintenance line wiring to upper machine room
18	Installation of earth(ground) lines to upper machine room
19	Installation of power supply and switches for lighting
20	Installation of building equipment such as sprinkler system, public address systems and signs
21	Installation of power supply and switches for lighting in lower ends
22	Installation of 4 non-Voltage lines(2 upper, 2 lower) for fire shutters

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2006. 8 Printed in Korea